

Amendments to the Specification

Under the title, above the Section Heading BACKGROUND OF THE INVENTION, add the Section Headings as follows:

CROSS-REFERENCE TO RELATED APPLICATIONS

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC

Under the Section Heading CROSS-REFERENCE TO RELATED APPLICATIONS, please insert the following new paragraph:

This application is a 371 of PCT/DE04/01290 filed June 19, 2004, the entire disclosure of which is hereby incorporated herein by reference.

Under the Section Heading STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT, please insert the following new paragraph:

Not Applicable

Under the Section Heading THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT, please insert the following new paragraph:

Not Applicable

Under the Section Heading INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC, please insert the following new paragraph:

Not Applicable

In between paragraphs [0004] and [0005] replace the Section Heading as follows:

~~SUMMARY OF THE INVENTION~~ BRIEF SUMMARY OF THE INVENTION

In between paragraphs [00013] and [00014] replace the Section Heading as follows:

~~DRAWINGS~~ BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

In between paragraphs [00016] and [00017] please insert the following new paragraph:

Figure 3 A schematic view of a vehicle including a passenger compartment.

Immediately above paragraph [00017] please replace the Section Heading as follows:

~~DETAILED DESCRIPTION~~ DETAILED DESCRIPTION OF THE INVENTION

Amend paragraph [000017] as follows:

[00017] A method to regulate a circulating air and/or intake air portion V_s , V_o in a passenger compartment of a vehicle is shown in a flow chart in Figure 1. Figure 3 shows the passenger compartment 1 and the vehicle 2. A fan 4 conveys the air into a passenger compartment 1, whereby the fan 4 is in a position to remove intake air from outside the passenger compartment 1 as well as circulating air from the interior of the passenger compartment 1 and supply it to the passenger compartment 1. In the process, a control unit 3 regulates the supply of air to the fan 4 from outside the passenger compartment 1 and/or from the interior of the passenger compartment 1. A circulating air flap 3' is used for this expediently upstream in front of the fan 4 as a part of the control unit 3. The fan 4 can be connected downstream or upstream of a heating/cooling device 5, like those that is used in motor vehicles.

Amend paragraph [00018] as follows:

[00018] A sensor 6 for detecting hazardous gas concentrations in the passenger compartment 1, in particular a CO₂ sensor 7, which is temperature-compensated to stabilize its measuring accuracy, triggers the control unit 3 for the circulating air and/or intake air portion V_s , V_o in the passenger compartment 1 with its temperature signal l_t and its signal l_{CO_2} that represents the hazardous gas concentration in the passenger compartment 1. The sensor ~~(not shown)~~ 6 is

embodied in the cited exemplary embodiments as a CO₂ sensor in the form of an infrared detector. The sensor 6 operates in a preferred measuring range of 9 g/m³ to 54 g/m³ corresponding to 0.5 to 3% by volume CO₂ and determines the CO₂ concentration in the air of the passenger compartment 1 in accordance with the principle of photometric gas measurement at wavelengths of 4.2 μm and 4.3 μm and with a reference wavelength between 3.8 μm and 4.0 μm.

Amend paragraph [00019] as follows:

[00019] A sensor 8 for measuring the ambient temperature of the sensor 6 for detecting the hazardous gas concentration in the passenger compartment 1 is used for temperature compensation of the sensor 6 for detecting the hazardous gas concentration. Both sensors 6, 8 preferably form a structural unit 9. The sensor 6 for detecting the hazardous gas concentration in the passenger compartment 1 communicates with its environment either with an analog or preferably digital LIN interfaces 10, which permits various operating modes of the sensor 6.

Amend paragraph [00020] as follows:

[00020] As Fig. 1 shows, the control unit 3 for the circulating air and/or intake air portion V_s, V_o in the passenger compartment 1, controls the fan 4 as a function of the temperature signal (I_t) and the signal (I_{CO2}), which represents the CO₂ concentration of the air in the passenger compartment 1, in such a way that it is supplied either exclusively circulating air (V_s = 100%) from the passenger compartment 1 or exclusively intake air (V_o = 100%) from outside the passenger compartment 1.

Amend paragraph [00021] as follows:

[00021] Circulating air operation is then maintained in the process until a hazardous gas concentration threshold value CL₂ that indicates a comfort threshold is exceeded. When the hazardous gas concentration threshold value CL₂ is exceeded, a switch is made to intake air operation (V_o = 100%) and air is conveyed from outside the passenger compartment 1 into the passenger compartment 1 until a hazardous gas concentration threshold value CL₁ is fallen short of. The hazardous gas concentration threshold value CL₁ is less than the hazardous gas concentration threshold value CL₂.

Amend paragraph [00022] as follows:

[00022] Because of the cooling/heating device 5, the temperature in the passenger compartment 1 is kept at a desirable level, whereby the temperature sensor 8 for temperature compensation, as a sensor for detecting the hazardous gas concentration in the passenger compartment, makes available an actual temperature value of the control unit 3 for the circulating air and/or intake air portion V_s , V_o in the passenger compartment 1.

Amend paragraph [00023] as follows:

[00023] As Figure 2 shows, instead of fully switching from circulating air operation to intake air operation and vice versa, it can be expedient instead to always constitute a mixed air operation with circulating air and intake air in the passenger compartment 1 of the vehicle 2. As a function of a pre-definable tolerable hazardous gas concentration threshold value CL for the air in the passenger compartment 1, the intake air portion is increased when a permissible tolerance concentration of hazardous gas is exceeded, i.e., CO₂ in the exemplary embodiment. If the pre-definable hazardous gas concentration threshold value CL falls short of a permissible tolerance concentration of hazardous gas, then, in order to minimize the energy requirement of the method, the circulating air portion of the air being supplied to the passenger compartment 1 is increased and the intake air portion is reduced. The reduction of the intake air portion can also be meaningful if, because of high outside temperatures of the passenger compartment 1 and an increased temperature of the intake air, the intake air must be cooled with a corresponding expenditure of energy.

Amend paragraph [00024] as follows:

[00024] The methods to regulate the circulating air and/or intake air portion in a passenger compartment that is depicted in Figures 1, 2 and ~~2~~ 3 can be represented with a single cooling/heating device 5 in the vehicle 2.

After the Claims, replace the Section Heading as follows:

ABSTRACT ABSTRACT OF THE DISCLOSURE